

Base from U. S. Geological Survey
Iditarod C-3 Quadrangle, 1954.

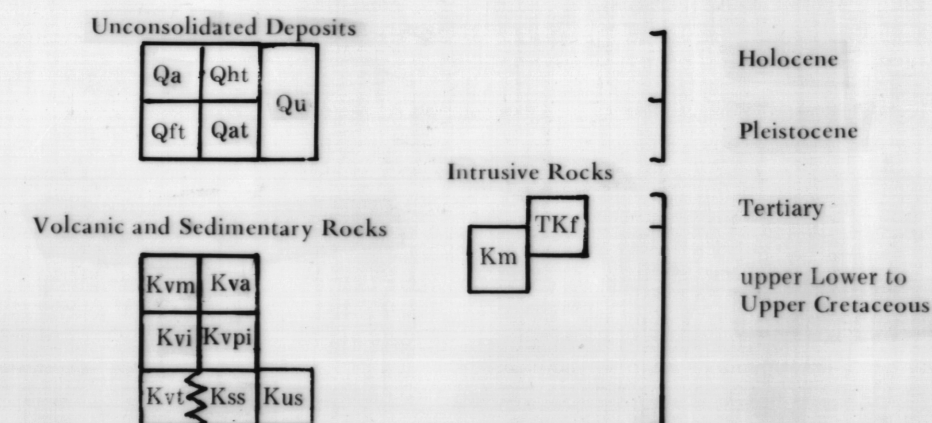
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PRELIMINARY GEOLOGIC MAP OF NORTHEASTERN IDITAROD C-3 QUADRANGLE, ALASKA

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CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

UNCONSOLIDATED UNITS

- Qa** STREAM ALLUVIUM — Unconsolidated silt, sand, and gravel deposited by modern streams on flood plains; commonly covered by pioneer flora.
- Qht** PLACER-MINE TAILINGS — Symmetrical to irregular stacked piles of waterwashed, sorted gravel and *in situ* slab rock. Fine fractions artificially removed or diluted during placer-mining process.
- Qft** FAN-TERRACE DEPOSITS — Composite unit of poorly sorted, partially stratified silt, sand, and gravel in alluvial fans and moderately sorted, well-stratified sand and gravel in terrace alluvium. Probably formed by erosion of pediment uplifted by Nixon-Iditarod fault. Includes alluvial aprons locally.
- Qat** TERRACE ALLUVIUM — Poorly to moderately stratified sand locally cemented by iron oxides. Probably includes strath terraces. Vegetated surfaces dissected by modern streams and mantled with eolian silt.
- Qu** QUATERNARY DEPOSITS, UNDIFFERENTIATED — Unconsolidated alluvial, colluvial, and eolian deposits. Eolian deposits locally ice rich in valley fill. Includes bedrock-derived talus and alluvial aprons on moderate to steep hillslopes. May include reworked drift near headward portions of Maybe and Moose Creeks.

BEDROCK UNITS

- TKf** RHYOLITE — Light-gray, bleached, aphanitic to very fine grained, biotite bearing quartz rhyolite to alaskite. Color index (CI) = 5.
- Km** MONZONITE TO QUARTZ MONZONITE — Light- to medium-gray, fine- to medium-grained, porphyritic to locally equigranular, tourmaline-bearing biotite-augite monzonite. Feldspar phenocrysts commonly zoned in altered, finer grained groundmass; biotite rims augite. CI = 15-40. Tourmaline rosettes up to 1 cm in diameter are particularly abundant in border phase. Very resistant and forms or underlies highest uplands in study area.
- Kvm** MAFIC VOLCANIC ROCKS — Dark greenish-gray to maroon, aphanitic to fine-grained, porphyritic olivine-pyroxene basalt, basaltic andesite, and mafic agglomerate. Dominant pyroxene is euhedral augite with grains and phenocrysts up to 1 cm in diameter. Olivine often altered to antigorite. More mafic units commonly a distinctive maroon to purple color. Columnar jointing well-expressed locally. Hornfelsed near Maybe and Moose Creeks. Resistant and forms prominent outcrops on ridge tops.
- Kva** VOLCANIC AGGLOMERATE — Medium- to dark-greenish-gray lapilli tuff and agglomerate containing elliptical bombs and fragments of basalt and andesite up to 3 cm in diameter. Moderately resistant.
- Kvi** INTERMEDIATE VOLCANIC ROCKS — Light- to medium-greenish-gray, aphanitic to fine-grained biotite-pyroxene andesite, dacite, agglomerate, and flow breccia. Unit contains approximately 50 percent agglomerate and flow breccia. Amygdules and fractures in andesitic flows commonly infilled with prehnite and chlorite. Quartz carbonate geodes locally developed in andesitic volcanics. Moderately resistant.
- Kvp** PORPHYRITIC ANDESITE — Medium-greenish-gray, porphyritic augite andesite with feldspar phenocrysts up to 2 cm long that comprise up to 35 percent of rock unit by volume. Moderately resistant.
- Kvt** ALTERED INTERMEDIATE TO FELSIC VOLCANIC ROCKS AND SANDSTONE — Heterogeneous unit of light-tan to iron-red, aphanitic to fine-grained, altered andesite, dacite, and welded(?) tuff, with interbedded quartzose subvolcanic sandstone near base. Groundmass of many volcanic samples altered to silica (tridymite), carbonate, and chlorite. Pseudomorphs of augite recognized in andesitic rocks. Fractures and amygdules infilled with prehnite, chlorite, quartz, and carbonate; distinctive light- to dark-blue chalcedony infillings of fractures up to 10 cm wide in Moose Creek drainage. Termed 'gossan unit' in field because of iron-red color of most of unit.
- Kss** LITHIC TO SUBLITHIC SANDSTONE — Light-gray, tan-weathered, fine- to medium-grained, lithic to sublithic, *Inoceramus*-bearing marine sandstone with 25 percent siltstone interbeds. Poorly to moderately resistant and forms sheeted talus on ridge tops.
- Kus** SEDIMENTARY ROCKS, UNDIFFERENTIATED — Heterogeneous unit of lithic to sublithic sandstone, siltstone, and shale containing variable proportions of these lithologies. Near Moose Creek, siltstone and shale contain broken plant stems and dicotyledon(?) leaf fragments. Poorly to moderately resistant outcrops along stream cuts.

MAP SYMBOLS

- Contact, approximately located; dashed where inferred.
- ② Major-oxide-analysis sample location
- High-angle fault--Dashed where approximately located, dotted where concealed, queried where questionable, U=upthrown side, D=downthrown side; arrows show direction of movement.
- Photogeologic lineament
- Anticline, showing trace of axial plane and direction of plunge
- Syncline, showing trace of axial plane and direction of plunge
- 40 Strike and dip of beds
Inclined
Vertical
Uncertain
- 54 Strike and dip of cleavage
Inclined
Vertical
- 65 Strike and dip of joints
Inclined
Vertical
- 55 Overturned isoclinal fold, arrow shows direction of plunge
- ⑭ Rock-chip geochemical sample (table 2)
- Hg Anomalous rock-chip geochemical sample showing anomalous element(s) (table 2)
- ⓕ Fossil locality